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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/059,533	04/13/1998	JERROLD HAUCK	042390.P5379	8654

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EXAMINER

TORRES, JOSEPH D

ART UNIT	PAPER NUMBER
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2133

DATE MAILED: 12/13/2002

16

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/059,533

Applicant(s)

HAUCK ET AL.

Examiner

Joseph D. Torres

Art Unit

2133

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 November 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 April 1998 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

1. Claims 4-11 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claim 4 cites, "sending a NAK to the originator of the primary packet concurrently with the receiving". The Examiner would like to point out that concurrently is defined as operating at the same time or running in parallel (see Webster's dictionary), that is; "sending a NAK to the originator of the primary packet concurrently with the receiving" implies that the NAK is generated in parallel with the receiving of the packet and that it therefore takes the same amount of time to generate the NAK as it does to receive the packet [Emphasis Added]. The Examiner would like to point out that the Applicant teaches that a NAK is produced and sent to the transmitter in sufficient time to abort sending the rest of the packet (see Figures 4 and 5 of the Applicant's disclosure) after a portion of the packet has been sent and prior to receiving the whole packet. The Examiner would like to point out that nowhere does the Applicant teach "sending a NAK to the originator of the primary packet concurrently with

Art Unit: 2133

the receiving", that is nowhere does the Applicant teach generating the NAK in parallel with the receipt of the packet.

Claims 5 and 9 cite similar language as in claim 4.

Claims 6-8, 10 and 11 depend from respective claims 5 and 9, hence inherit the deficiencies of claims 5 and 9, respectively.

The examiner is assuming that *sending a NAK to the originator of the primary packet during the receiving* in place of "sending a NAK to the originator of the primary packet concurrently with the receiving" was intended.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 4-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

While applicant may be his or her own lexicographer, a term in a claim may not be given a meaning repugnant to the usual meaning of that term. See *In re Hill*, 161 F.2d 367, 73 USPQ 482 (CCPA 1947). The term "concurrently" in claim 4 is used by the claim to mean "during," while the accepted meaning is "in parallel."

Claims 5 and 9 cite similar language as in claim 4.

Claims 6-8, 10 and 11 depend from respective claims 5 and 9, hence inherit the deficiencies of claims 5 and 9, respectively.

Art Unit: 2133

The examiner is assuming that *sending a NAK to the originator of the primary packet during the receiving* in place of "sending a NAK to the originator of the primary packet concurrently with the receiving" was intended.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
3. Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over BOAL, JOHN HILL et al. (GB 2266032 A, hereafter referred to as BOAL).
4. 35 U.S.C. 103(a) rejection of claim 1.

BOAL teaches a method comprising: transmitting a packet (page 2, last paragraph of BOAL, Note: BOAL teaches that each packet is comprised of a header frame and optional data frames) from a source node towards a destination node on a bus (see

Art Unit: 2133

Abstract and page 1, first paragraph of BOAL); receiving a NAK while the packet is being transmitted (See Abstract, Claims 33 & 35 and Figure 6 of BOAL, Note: BOAL teaches that the header of the packet is sent and that if a reply is received, the transmitter makes a decision on whether to wait, abort or continue transmitting depending on whether the reply is a NAK, WAK or ACK); and aborting the transmission without sending all of the packet (see Abstract of BOAL, Note: when the packet is aborted the data frame portion of the packet is not sent).

However BOAL, does not explicitly teach the specific application of the method taught in the BOAL application to a bus environment using primary packets.

The Examiner would like to point out that although BOAL does not explicitly teach the specific application of the method taught in the BOAL application to a bus environment using primary packets, BOAL does explicitly teach every detail of the method set forth in the limitations of the Applicant's claim 1 [Emphasis Added]. In addition, in the first paragraph of page one in BOAL; BOAL, explicitly, states that the method, taught in the BOAL patent is suitable for a packet bus for interconnecting computer systems. The Applicant's claim 1 cites a primary packet for transmission on a full duplex bus; hence according to the language in the Applicant's claim 1 a primary packet is a packet for transmission on a packet bus interconnecting computer systems. Furthermore BOAL explicitly provides motivation on why one of ordinary skill in the art at the time the invention was made would apply or combine the method taught in the BOAL application to any packet for transmission on a packet bus interconnecting computer systems (in paragraph 3 on page 2 of BOAL) where BOAL explicitly cites that a second aspect of

Art Unit: 2133

the invention is to "reduce wastage of bus time and improve the reliability and error tolerance of packet communications" [Emphasis Added].

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify BOAL by applying the method taught in the BOAL patent to any packet for transmission on a packet bus interconnecting computer systems and in particular to a full duplex bus using primary packets. This modification would have been obvious to one of ordinary skill in the art, at the time the invention was made, because one of ordinary skill in the art would have recognized that applying the method taught in the BOAL patent to any packet for transmission on a packet bus interconnecting computer systems and, in particular, to a full duplex bus using primary packets would provide the opportunity "reduce wastage of bus time and improve the reliability and error tolerance of packet communications" (paragraph 3 on page 2 of BOAL).

5. 35 U.S.C. 103(a) rejection of claim 2.

Reducing "wastage of bus time and improve the reliability and error tolerance of packet communications" (paragraph 3 on page 2 of BOAL) is a step for reclaiming bandwidth not used as a result of aborting.

6. 35 U.S.C. 103(a) rejection of claim 3.

In the second paragraph of page 11 in BOAL, BOAL teaches an arbitration scheme whereby the node with highest priority wins.

7. 35 U.S.C. 103(a) rejection of claims 4 and 5.

The Examiner is assuming that *sending a NAK to the originator of the primary packet during the receiving* in place of “sending a NAK to the originator of the primary packet concurrently with the receiving” was intended. BOAL teaches a method comprising: receiving a packet (page 2, last paragraph of BOAL, Note: BOAL teaches that each packet is comprised of a header frame and optional data frames) at a destination node (see Abstract of BOAL); identifying, during the receiving, that the node cannot successfully accept the packet (paragraph 2 on page 3 of BOAL); and sending a NAK to the originator of the packet during the receiving (See Abstract, Claims 33 & 35 and Figure 6 of BOAL, Note: BOAL teaches that the header of the packet is sent and that if a reply is received, the transmitter makes a decision on whether to wait, abort or continue transmitting depending on whether the reply is a NAK, WAK or ACK). In addition, see rejection to claim 1, above.

However BOAL, does not explicitly teach the specific application of the method taught in the BOAL application to a bus environment using primary packets.

The Examiner would like to point out that although BOAL does not explicitly teach the specific application of the method taught in the BOAL application to a bus environment using primary packets, BOAL **does** explicitly teach every detail of the method set forth in the limitations of the Applicant's claims 4 and 5 [Emphasis Added]. In addition, in the first paragraph of page one in BOAL; BOAL, explicitly, states that the method taught in the BOAL patent are suitable for a packet bus for interconnecting computer systems or

any other system for that matter. Furthermore BOAL explicitly provides motivation on why one of ordinary skill in the art at the time the invention was made would apply or combine the method taught in the BOAL application to any packet for transmission on a packet bus interconnecting computer systems or any other system for that matter (in paragraph 3 on page 2 of BOAL) where BOAL explicitly cites that a second aspect of the invention is to "reduce wastage of bus time and improve the reliability and error tolerance of packet communications" [Emphasis Added].

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify BOAL by applying the method taught in the BOAL patent to any packet for transmission on a packet bus interconnecting computer systems and in particular to a communication system using primary packets. This modification would have been obvious to one of ordinary skill in the art, at the time the invention was made, because one of ordinary skill in the art would have recognized that applying the method taught in the BOAL patent to any packet for transmission on a packet bus interconnecting computer systems and, in particular, to a communication system using primary packets would provide the opportunity "reduce wastage of bus time and improve the reliability and error tolerance of packet communications" (paragraph 3 on page 2 of BOAL).

8. 35 U.S.C. 103(a) rejection of claim 6.

See Abstract of BOAL, Note: when the packet is aborted the data frame portion of the packet is not sent.

9. 35 U.S.C. 103(a) rejection of claim 7.

In the second paragraph of page 11 in BOAL, BOAL teaches an arbitration scheme whereby the node with highest priority wins. In addition, the Applicant admits on page 1, lines 16-19, that a tree topology is a protocol structure, hence is not part of the Applicant's invention.

10. 35 U.S.C. 103(a) rejection of claim 8.

See paragraph 2 on page 3 of BOAL.

11. 35 U.S.C. 103(a) rejection of claim 9.

The Examiner is assuming *the NAK generated during an ongoing arrival of the primary packet* in place of "the NAK generated concurrently with an ongoing arrival of the primary packet" was intended. In addition, ongoing is defined in Webster's dictionary as "being in actual process", hence the Examiner is assuming *the NAK generated during an arrival of the primary packet that is in actual process* in place of "the NAK generated concurrently with an ongoing arrival of the primary packet" was intended. BOAL teaches an apparatus comprising: a transceiver; a state machine coupled to the transceiver (see claim 11, BOAL), the state machine to generate NAK in response to an inability to successfully accept a packet (paragraph 2 on page 3 of BOAL), the NAK generated *during an arrival of the primary packet that is in actual process* (See Abstract, Claims 33 & 35 and Figure 6 of BOAL, Note: BOAL teaches that the header of the

packet is sent and that if a reply is received the transmitter makes a decision on whether to wait, abort or continue transmitting depending on whether the reply is a NAK, WAK or ACK).

However BOAL, does not explicitly teach the specific application of the method taught in the BOAL application to a communication environment using primary packets.

The Examiner would like to point out that although BOAL does not explicitly teach the specific application of the method taught in the BOAL application to a bus environment using primary packets, BOAL **does** explicitly teach every detail of the method set forth in the limitations of the Applicant's claim 9 [Emphasis Added]. In addition, in the first paragraph of page one in BOAL: BOAL, explicitly, states that the method taught in the BOAL patent are suitable for a packet bus for interconnecting computer systems or any other system for that matter. Furthermore BOAL explicitly provides motivation on why one of ordinary skill in the art at the time the invention was made would apply or combine the method taught in the BOAL application to any packet for transmission on a packet bus interconnecting computer systems or any other system for that matter (in paragraph 3 on page 2 of BOAL) where BOAL explicitly cites that a second aspect of the invention is to "reduce wastage of bus time and improve the reliability and error tolerance of packet communications" [Emphasis Added].

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify BOAL by applying the method taught in the BOAL patent to any packet for transmission on a packet bus interconnecting computer systems and in particular to a communication system using primary packets. This modification would

Art Unit: 2133

have been obvious to one of ordinary skill in the art, at the time the invention was made, because one of ordinary skill in the art would have recognized that applying the method taught in the BOAL patent to any packet for transmission on a packet bus interconnecting computer systems and, in particular, to a communication system using primary packets would provide the opportunity "reduce wastage of bus time and improve the reliability and error tolerance of packet communications" (paragraph 3 on page 2 of BOAL).

12. 35 U.S.C. 103(a) rejection of claim 10.

See paragraph 2 on page 3 of BOAL.

13. 35 U.S.C. 103(a) rejection of claim 11.

See Abstract of BOAL, Note: when the packet is aborted the data frame portion of the packet is not sent.

Conclusion

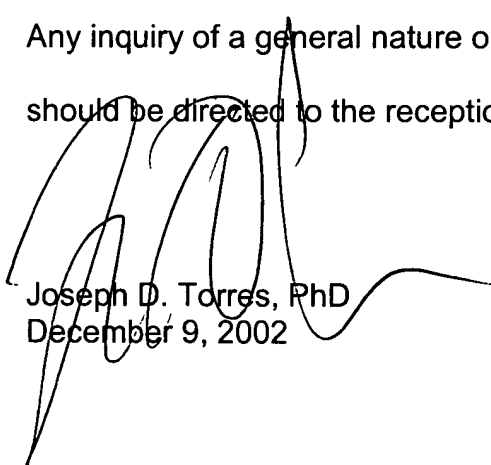
14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Sarnikowski, Scott et al. (US 6453406 B1) teaches aborting a packet transmitted on a full-duplex fiber optics bus before the whole packet is received at the receiver. Purcell, Stephen C. et al. (US 5664154 A) teaches aborting a packet transmitted on a bus to memory before the whole packet is received at the memory. Parkerson, Walter E. et al. (US 5592536 A) teaches concurrently generating an answer

packet while receiving an originate packet. Lilja, David J. et al. (US 4888684 A) teaches aborting a packet transmitted on a bus to a processor before the whole packet is received at the processor.


15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph D. Torres whose telephone number is (703) 308-7066. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert Decady can be reached on (703) 305-9595. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7239 for regular communications and (703) 746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)-746-7240.



Joseph D. Torres, PhD
December 9, 2002



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